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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/851,667	05/06/97	ANDERSON E	P122

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EXAMINER	
MOE, A	
ART UNIT	**PAPER NUMBER**
2712	4

DATE MAILED: 03/22/99

Please find below and/or attached an Office communication concerning this application or proceeding.

See Attached.

Commissioner of Patents and Trademarks

Office Action Summary	Application No. 08/851,667	Applicant(s) Anderson et al.
	Examiner Aung S. Moe	Group Art Unit 2712

☐ Responsive to communication(s) filed on _____.

☐ This action is **FINAL.**

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) *1-29* is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) *1-29* is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, Substitute PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐approved ☐disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, Substitute PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. Claims 14-20, 21-27 and 28-29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 14 recites the limitation "the menu-specific items" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim.

Claim 21 recites the limitation "the digital camera" in lines 17-18. There is insufficient antecedent basis for this limitation in the claim.

Claim 28 recites the limitation "the display" in line 6. There is insufficient antecedent basis for this limitation in the claim.

Claim 28 recites the limitation "the primary display" in line 7. There is insufficient antecedent basis for this limitation in the claim.

In Claim 28, it is unclear how "the fourth element" as recited in line 19 related to "a fourth set of elements" as recited in line 18? If there is the same "element," the Examiner suggests changing "the fourth element" as recited in line 19 to --the fourth set of elements"--.

In Claim 28, lines 21-25, it is cited that "wherein when the camera is in the second operation mode, the user navigates the third set of elements using the first set of navigation buttons and navigates the second element using the second set of navigation buttons, ".

However, it is unclear how the user navigates the second element (i.e., which is the part of a primary display) by using the second set of navigation buttons in the second operation mode (i.e., the second operation mode is for a status display)? It is appeared that during the second operating mode (i.e., the step of controlling the status display), the user navigates the fourth set of elements by using the second set of navigation buttons. Thus, the Examiner is assuming that during the second operating mode, the user navigates the fourth set of elements by using the second set of navigation buttons.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was

made in order for the examiner to consider the applicability of 35 U.S.C. 103{C} and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-10, 11-19, 21-23 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikuo Matsumoto et al. (Translation of JP 8-223,524) in view of Mills et al. (U.S. 5,513,306).

Regarding claims 1-4, Matsumoto '524 discloses a method for integrating a user interface across multiple operating modes (i.e., Playback, editing, and picture-taking) of a digital camera (Fig. 1) having a display (110), wherein when the digital camera is placed into each one of the multiple operating modes, mode-specific items corresponding to that mode are displayed on the display (Figs. 4c and 6c), the digital camera including a first button with left and right navigation buttons having a horizontal orientation and a second button with up and down navigation buttons having a vertical orientation (Fig. 1, element 111) for interacting with the multiple operation modes (i.e., Normal/Multiple playback, Editing, and Picture-Taking modes), the method furthers comprising the step of:

mapping an aligned set of mode-specific items in the display to the orientation of the first button to create a mapped navigation button (see Figs. 4c, 6c and 8c);

scrolling from one mode-specific item to the next (i.e., selecting the different mode by using the button 111) in the aligned set by pressing the mapped navigation (111) wherein the display indicates which of the mode-specific item is a current active item (i.e., it is clear that when

the button 111 is scrolling from one mode-specific item to the next then the character/mark composition means 108 indicates the changes in the display 110; see page 27-28).

Furthermore, it is noted that Matsumoto '524 does not explicitly show the step of displaying additional information includes a list of information items corresponding to the current active item in the display in a location that is offset from the active item in a direction of orientation corresponding to that of the second button, and scrolling through the list of information items by pressing the second button as specified in claim 1-2.

However, the above mentioned claimed limitations are well-known in the art as evidenced by Mills '306. Moreover, Mills '306 teaches the use of video editing software which provides the user with an interface for controlling and editing video information input from the video source. Upon initialization of the editing system, the user is presented with a video window for displaying a set of mode-specific items (i.e., Fig. 2, the elements 24 and 34) having a horizontal orientation and displaying additional information includes a list of information items corresponding to the currently active item in the display in a location that is offset from the active item in a vertical orientation (i.e., col. 5, lines 30-39); and scrolling through from one mode-specific item to the next and the lists of information items with the control device 18 (see col. 3, lines 20-60, col. 4, line 45 to col. 5, line 68).

Therefore, having the portable digital camera with an editing operation as discloses by Matsumoto '524 and then given the well-established.teaching of Mills '306, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the display

of Matsumoto '524 by providing the user interface as taught by Mills '306 in order to carry out an efficient playback and editing operation as suggest by Mills '306 (see col. 3, lines 10-15, col. 5, lines 50-55) and it is cleared that such an advantage would have been desirable in Matsumoto '524.

Regarding claims 5-6, the combination of Matsumoto '524 and Mills '306 shows the step of displaying a set of menu icons as the mode-specific while in the first operation mode (see Fig. 6C of Matsumoto '524 and col. 5, lines 20-68, Fig. 2 of Mills '306); and the step of pressing the down navigation button (the button 111 of Matsumoto '524) to scroll through the list of information items (Fig. 2 of Mills '306) corresponding to the currently active item (see Fig. 6C of Matsumoto '524 and col. 5, lines 20-68, Fig. 2 of Mills '306).

Regarding claims 7-8, the combination of Matsumoto '524 and Mills '306 shows the step of providing a second operating mode where when the digital camera is placed into the second operating mode (i.e., Multi-playback/Normal-playback), a set of thumbnail images corresponding to captured images is displayed as the mode-specific items (Figs. 7C of Matsumoto '524; and Figs. 2 & 6, col. 5, lines 20-68 of Mills '306); and the step of displaying a large thumbnail as part of the additional information (Fig. 2 & 6 of Mills '306 and Fig. 7C & 8C of Matsumoto '524).

Regarding claims 9-10, Matsumoto '524 shows the step of providing a third operating mode (i.e., editing) wherein when the digital camera is placed into the third operating mode, a set of icons representing camera features is displayed as the mode-specific items (i.e., Figs. 6C & 8C, the elements 212, 213 and 214 of Matsumoto '524); and the step of changing a particular one of

the camera features (i.e., a desired playback speed) by pressing one of the up and down navigation button to change a state of the corresponding icon (i.e., Figs. 6C & 8C, the elements 212 & 213; page 30 of Matsumoto '524).

Regarding claims 11, 12 and 13, please see Examiner's comment with respect to claims 1-4 as discussed above.

Regarding claim 14, please see Examiner's comment with respect to claim 5 as discussed above.

Regarding claim 15, the combination of Matsumoto '524 and Mills '306 shows wherein as the user presses the first set of navigation buttons (111 of Matsumoto '524) to scroll through the set of icons (Matsumoto '524 show a set of icons such as 211, 215, 216, 214 and 212), each of the icons is highlighted (i.e., As shown in Fig. 2, col. 5, lines 20-68, Mills '306 teaches the use of the menu bar which can be presented with certain functional icons and base on the user's selection these factional icons are highlighted), and becomes an active icon in response to the user pressing one of the second set of navigation buttons (111).

Regarding claims 18-19, the Matsumoto '524 shows wherein the digital camera is placed into a third operating mode (i.e., picture taking/editing) the menu-specific items (i.e., the elements 207-210, 212-216) representing camera feature settings. On the other hand, Mills '306 teaches that the additional information includes text representing the feature setting of the currently active item (i.e., As shown in Fig. 2, Col. 5, lines 20-68, Mills '306 teaches that when the user activated the certain functional icons from the menu bar then the additional information is activated along

with text representation.). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Matsumoto '524 by providing the teaching of Mills '306 in order to improve the ease of use during playback and editing operation as suggested by Mills '306 (see col. 5, lines 50-55).

Regarding claims 21-23, please see Examiner's comment with respect to claims 1-4 and 7-8 as discussed above.

Regarding claim 25, please see Examiner's comment with respect to claim 5 as discussed above.

Regarding claims 26-27, the combination of Matsumoto '524 and Mills '306 shows the steps of displaying a text feature list corresponding to the activated mode-specific item; and displaying text corresponding to a state of the activated mode-specific item (see Figs. 6C & 8C, the elements 212, 211, 214-216 of Matsumoto '524 and Fig. 2, col. 5, lines 20-68 of Mills '306).

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto '524 and Mills '306 as applied to claims 1-10, 11-19, 21-23 and 25-27 above, and further in view of Isoguchi et al. (U.S. 5,146,353).

Regarding claim 20, the combination of Matsumoto '524 and Mills '306 does not explicitly show where the digital camera further includes a status display for displaying the mode-specific items and the additional information.

The above mentioned claimed limitations are well-known in the art as evidenced by Isoguchi '353. Moreover, Isoguchi '353 teaches the use of a status display (Fig. 3) for displaying the mode specific items and the additional information (col. 4, line 8 - col. 5, lines 68) for the purpose of reducing the burden of a photographer and improving the maneuverability of the camera.

Therefore, having the combination of Matsumoto '524 and Mills '306 and then given the well-established teaching of Isoguchi '353, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Matsumoto '524 by providing the teaching of Isoguchi '353 for the purpose of reducing the burden of a photographer and improving the maneuverability of the camera as taught by Isoguchi '353 (col. 1, lines 40-45).//

5. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto '524 and Mills '306 as applied to claims 1-10, 11-19, 21-23 and 25-27 above, and further in view of Matsumoto et al. (U.S. 5,796,428).

Regarding claim 24, the combination of Matsumoto '524 and Mills '306 does not explicitly show the step of displaying text of an image name and date corresponding to the activated mode-specific item.

However, the above mentioned claimed limitations are well-known in the art as evidenced by Matsumoto '428. Moreover, Matsumoto '428 teaches the step of displaying a plurality of icons as the mode specific items (see Fig. 5) and displaying text of an image name and date

corresponding to the activated mode-specific item (see Figs. 7-9, col. 1, lines 50-55, col. 7, lines 25-68, col. 9, line 55 - col. 10, line 68) so that the images can be easily rearranged and the pictures can also be automatically classified according to the themes.

Therefore, having the combination of Matsumoto '524 and Mills '306 and then given the well-established teaching of Matsumoto '428, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Matsumoto '524 by providing the teaching of Matsumoto '428 so that the images can be easily rearranged and the pictures can also be automatically classified according to the themes as taught by Matsumoto '428 (see col. 2, lines 40-60 and col. 3, lines 25-41 of Matsumoto '428).

6. Claims 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto '524 in view of Mills '306 and Isoguchi '353.

Regarding claim 28, Matsumoto '524 discloses a digital camera having an integrated user interface; comprising: an image device for capturing image data (Fig. 2); a memory (105) coupled to the imaging device for storing the image data as captured images; a first set of navigation buttons having a first orientation and a second set of navigation buttons having a second orientation for controlling navigation in a display (Figs. 1 & 2, the elements 110 and 111); a processor (113) coupled to the image device, the memory, a primary display and to the first and second set of navigation buttons for controlling operation of the digital camera including a first operation mode and a second operating mode (Fig. 2, Pages 23);

a primary display (110) coupled to the processor (113), the primary display being divided into a first set of elements (i.e., Figs. 4C, 6C & 8C, the elements 207-210, 211-212, and 214-216) aligned with the orientation of the first set of the navigation buttons and when the camera is in the first operating mode (i.e., either one of Normal/Multiple playback, Editing, or Picture-Taking modes), a user navigates the first set of elements using the first set of navigation buttons (111).

It is further noted that Matsumoto '524 does not explicitly show a second element displayed offset from the first set of elements in a direction aligned with the orientation of the second set of navigation buttons, wherein a user navigates the second element using the second set of navigation buttons as cited in claim 28.

However, the above mentioned claimed limitations are well-known in the art as evidenced by Mills '306. Moreover, Mills '306 teaches the use of video editing software which provides the user with an interface for controlling and editing video information input from the video source. Upon initialization of the editing system, the user is presented with a video window for displaying a first set of elements (i.e., Fig. 2, elements 24 and 34) having a horizontal orientation and displaying a second element corresponding to the currently active item in the display in a location that is offset from the active item in a vertical orientation (i.e., col. 5, lines 30-39); and scrolling through from one mode-specific item to the next and the lists of information items with the control device 18 (see col. 3, lines 20-60, col. 4, line 45 to col. 5, line 68).

Therefore, having the portable digital camera with an editing operation as discloses by Matsumoto '524 and then given the well-established teaching of Mills '306, it would have been

obvious to one of ordinary skill in the art at the time the invention was made to modify the display of Matsumoto '524 by providing the user interface as taught by Mills '306 in order to carry out an efficient playback and editing operation as suggest by Mills '306 (see col. 3, lines 10-15, col. 5, lines 50-55) and it is cleared that such an advantage would have been desirable in Matsumoto '524.

Moreover, it is also noted that Matsumoto '524 does not explicitly show a status display coupled to the processor, the status display being divided into a third set of elements and a fourth set of elements, wherein the third set of the element is aligned with the orientation of the first set of navigation buttons and the fourth set of elements is displayed offset from the third set of elements in a direction of orientation corresponding to the second set of navigation buttons, wherein when the camera is in the second operating mode, the user navigates the third set of elements using the first set of navigation buttons and navigates the fourth set of elements using the second set of navigation buttons, whereby navigation of the second operating mode in the status display is similar to navigation of the first operating mode in the primary display.

However, the above mentioned claimed limitations are well-known in the art as evidenced by Isoguchi '353. Moreover, Isoguchi '353 teaches the use of a status display (Fig. 3) in the digital camera (1), wherein the status display coupled to the processor (L or 33 as shown in Figs. 4 and 5), and the status display being divided into a third set of elements (i.e., Interval, Macro) and a fourth set of elements (i.e., SINGLE, CONT, L→CONT., and H→SELF), wherein the third set of the element having a horizontal orientation (i.e., same orientation of the first set of

navigation buttons 111 of Matsumoto '524) and the fourth set of elements is displayed offset from the third set of elements (see Fig. 3) in a vertical direction of orientation (i.e., it is corresponding of the second set of navigation buttons 111 of Matsumoto '524), wherein when the camera is in the second operating mode (i.e., picture-taking mode as disclosed by Matsumoto '524), the user navigates the third set of elements in the horizontal orientation and navigates the fourth set of elements in the vertical orientation, whereby navigation of the second operating mode in the status display (Fig. 3 of Isoguchi '353) is similar to navigation of the first operating mode in the primary display (i.e., the operation of the status display of Isoguchi '353 is similar to the operation of the primary display as discussed in the combination of Matsumoto '524 and Mills '306 as above).

Therefore, having the combination of Matsumoto '524 and Mills '306 and then given the well-established teaching of Isoguchi '353, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Matsumoto '524 by providing the teaching of Isoguchi '353 for the purpose of reducing the burden of a photographer and improving the maneuverability of the camera as taught by Isoguchi '353 (col. 1, lines 40-45).

Regarding claim 29, it is further noted that Matsumoto '524 does not explicitly show a first and second status control buttons wherein the user navigates the status display using the first and second status control buttons.

However, the above mentioned claimed limitations are also well-known in the art as evidenced by Isoguchi '353. Moreover, Isoguchi '353 further teaches the use of a first and second status control buttons (see Fig. 3, col. 4, lines 8-68). Therefore, having the combination

of Matsumoto '524 and Mills '306 and then given the well-established teaching of Isoguchi '353, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the conventional use of status control buttons of Isoguchi '353 to the portable digital camera of Matsumoto '524 in order to enable the user to avoid or at least minimize such inadvertent or erroneous operation during the picture-taking operation and further improving the maneuverability of the camera as suggested by Isoguchi '353 (see col. 1, lines 5-68).

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Hayashi '809, Endoh '103, Matheny '606, Gasper '017, Meyer '504 and Hirano '277 shows the system and method for integrating a user interface across multiple operating modes.

b. Anderson '918, Moronaga '370 and Kurahashi '291 show a digital camera with a display and a user interface thereof.

c. Wakui '492 and Kubo '831 show a digital camera with a status display and control thereof.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Aung S. Moe** whose telephone number is **(703) 306-3021.** If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wendy Garber**, can be reach on (703) 305-4929.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communication intended for entry)

or:

(703) 308-5359, (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

A. Moe

March 1, 1999

Wendy Garber
Supervisory Patent Examiner
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